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SOCIO-ECONOMIC IMPACT MODEL

FOR NORTHERN DEVELOPMENT

VOLUME 1

64

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for

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PREFACE

The purpose of this report is to provide a model of the socio-economic impact of industrial development on northern communities. It is hoped that such a model will assist planners and policy makers to understand and to be sensitive to the multiplicity of factors which underly the socio-economic development process in such communities.

The report is the result of the efforts of a number of researchers working in a small sample of communities in North West British Columbia. Their approach was to test a conceptual model by examining its applicability to these communities. Research in these communities led to modification of the original model and the result is the tentative model contained in Chapter Three. This model should be tested in future studies to determine its reliability and viability as a vehicle to assist policy decisions.

Efforts to bring this work to completion would not have been successful without the invaluable assistance of Caroline Charman and Gillian Sparrow.

In addition to this report, the researchers also prepared two supplementary volumes. The first describes briefly the historical development of the communities which were studied; the second provides a longer list of sources on social impact assessment. These volumes are available on request.

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CHAPTER ONE

INTRODUCTION

According to K. Scott Wood's review of DIAND efforts to improve social reporting in the Canadian North, the early 1970's brought a "new sensitivity to the 'fallout' from economic growth (that) was clearly reflected in the way policy priorities were stated." (Wood, 1974:3.) This new sensitivity resulted in large part from an abrupt change in the scale of economic and social impacts and from some unhappy experiences with the "unforeseen consequences of public policy" which had been intended to protect and/or benefit the local population, but which because of a lack of understanding of local situations, had had negative side effects. (Ibid:6.)

As with almost all other early attempts to create a social reporting and accounting system, the DIAND sponsored approach took the form of using a variety of social indicators which were designed to "complement the economic information." (Wood, 1969:iv.) However, as the list of potentially important indicators grew, so too did the confusion over their interpretation. It therefore became apparent that the application of simple social and economic indicator approaches to the "statistics of direct normative interest" (Wood, 1974:11.) was not so simple after all.

Wood identifies several apparent problems with the existing approaches. In essence, these problems arise from the confusion over levels of indicator application and interpretation, the "marginality fallacy", and the lack of a conceptual model of the whole social environment for which indicators were intended to supply meaningful verification and interpretation.

The first of these problems is essentially taxonomic, that is, there was often a considerable confusion about what should or could be measured in this way. Wood observes that there is a distinction between "informational", "predictive" and "evaluative" indicators. If inappropriate indicators are

used this will inevitably lead to analytic distortions in the subsequent analysis. However, this problem appears to be secondary rather than primary.

By contrast, the two other problem areas he identifies do appear to us to be fundamental. Although Wood does not explore it very deeply, the "marginality fallacy" refers to the fact that most of the established economic indicator models, which are taken as the basis for social indicator development, assume that analysis and sound decision making can be guided by the economists concept of marginal utility. Unfortunately, social preference decisions rarely reflect this homo economicus reasoning, and as Wood correctly points out, contemporary Northern development characteristically takes the form of the imposition of an enormous economic and social impact on small communities, or even the creation of communities where none had existed before. Thus the application of the marginal cost-benefit model of economic analysis, which assumes that a whole range of economic institutions and processes are already in existence, and that the impact is merely a modification of that system, is fallacious. In the case of pre-existing communities, Northern development initiatives all too often represent not a shift in circumstances at the established social and/or economic margin, but rather a hammer-like blow on the whole community that far exceeds the adaptive tolerance limits of the original population. The results have frequently been examples of dislocation, exclusion, and marginalization, which cause considerable concern.

By the same token, the many attempts at creating "instant communities" on the northern resource frontier have generally been evaluated in strongly negative terms. Although the case study literature identifies many problems here, the common theme appears to be a failure in the formal planning process which often involves both corporations and governments, to provide for the natural growth of locally responsive economies.

There is also frequently an inability, or unwillingness, to allow for the informal establishment of locally relevant social institutions, and, most critically, recruitment and sorting mechanisms for new potential settlers. Indeed, one of the greatest ironies to be found in the "instant community" syndrome is the attempt by planners to recreate in isolated and remote locations, with adverse weather conditions, what they perceive to be the most desirable aspects of urban industrial life, which are usually conceived of as a well planned suburbia not too close to the industrial plant. The result has almost inevitably been a disappointment from most points of view. Not only has it proved impossible to create some satisfactory approximation of urban existence but in attempting to do so, the more challenging alternative of attempting to design environments that would be compatible with the growth of viable rural community life is systematically excluded. Not surprisingly, the hoped for recruitment, and more importantly, the retention of workers with strong attachment to urban values, which are assumed to be essential to the mastery of industrial skills, has been in general a failure. The alternative possibility of recruiting (and if necessary retraining) those who have established rustic values and commitments is foregone because of an almost ritualistic insistence on the maintenance of the facades of urban institutions.

In both the "impacted community" or the "instant community" situation, the application of conventional indicator approaches that grow out of southern urban industrial experience and assumptions appears to us to be more likely to distort than to uncover the variables that reveal the relevant reality.

The above comments, which go some distance beyond Wood's own observations on the marginality fallacy, lead directly to the problem that Wood saw as most serious, that is, the absence of an appropriate conceptual framework that would permit the abstraction of locally relevant socio-economic indicators in

the first instance, and then guide their later interpretative application within the realm of policy decision-making. In the absence of such a "social system model" randomly selected indicators run the risk of becoming the untested and untestable assumptions about reality rather than the operational tools by which to derive insights and data about the relevant reality. As such, they became at best arbitrary: at worst, meaningless. As Wood cogently states it:

There seem to be several conceptual problems involved in developing a system of social accounts . . . which can be used to guide policy. First, if what we want is an integrated social accounts model of the whole "relevant" social system, which generates indicators that illuminate causal relationships and have, therefore, predictive capability, we must be able to identify in a comprehensive way the component parts of the [relevant] social system. However, this identification will necessarily be rather arbitrary as long as we lack a sufficient general social theory. Second, the absence of a social theory, specifying components of the [local] social system and their relationships, has at least two repercussions for the construction and interpretation of a social information system: (1) we have no guarantee that it is more than partial and subjective since the system does not build on a body of scientifically validated theory, and (2) in many cases the social statistics used will not be capable of normative interpretation. (Wood, 1974:11.)

It is this lack of a conceptual framework through which the locally relevant variables and operationally valid indicators could be abstracted and then normatively interpreted that motivates our own efforts in the field and defines our critical point of departure. However, before proceeding to the articulation of our own "approach to social reporting in the Canadian North", it may prove useful to extend Wood's critique by reviewing his own pilot study.

We have already indicated, by our additions to Wood's passage, that we perceive a fairly serious problem in Wood's description of what is required in a general conceptualizing theory. Specifically, we added to the above quotation the bracketed words "local" and "relevant". These editorial

injections were consciously intended to reverse what emerges as a latent assumption, i.e., that the missing conceptual model should be nomothetic in character. That is to say, it should establish the primary indicator variables in such a way that these variables carry equal force in all situations. While this nomothetic assumption accurately reflects the widespread social scientific bias that views the introduction of modern economic activity as necessarily transforming virtually all pre-existing social and economic institutions into a homogeneous commonality (the "convergence" theory), we question this assumption's validity in its application to Northern hinterland venues.

As an alternative, we would argue that at a minimum, the ideographic approach to model-building should be tried. Specifically, we suggest that any predictive model-building intended to inform social policy decisions about the likely effects of impending impacts on Northern communities should be abstracted from this northern environment itself. Such a predictive model most definitely should not employ the established indicators and conventional wisdoms that have been abstracted from urban industrial contexts. Nor should such a model assume that all northern communities are homogeneous with respect to each other. On the contrary, the quest for a valid and reliable interpretative model capable of informing northern development policy formation must in the first instance focus precisely upon existing and locally unique, social, economic, and political institutional parameters. This is necessary because they represent a very full range of indigenous forms of reactive adaptations, objective and subjective, to past impacts, which have been both positive and negative in character.

It is important here to reiterate that in arguing for local studies as the beginning point for model construction we are seeking to build a general model with a wider potential for application in the north and not simply arguing for an endless accumulation of unique community studies. By

focussing this pilot study on a few carefully selected sample communities that seemed likely to reveal a range of essentially diverse possibilities, we hope to establish valid indicators and also a calculus of predictive inference that could be returned after further refinement to any part of the northern hinterland in the context of abstracting information relevant to a variety of policy applications. The function of a model so developed is to ensure that it is the northern operant reality itself that is abstracted rather than imposing through the research some alien criteria that makes no sense at the local level. In our design of this pilot study we anticipated that such a model would take the form of a typology at its most abstract level; that this typology would reflect a common set of polar variables; that the identification of the relevant variables (and their derived indicators) would be the principal aim of the pilot study design; and that this design would apply comparative field study techniques to a set of hinterland communities that had been carefully selected on the basis of prima facie evidence of having encompassed the relevant impact experience and adaptation.

It is, of course, with the advantage of five years of further experience that we are able to criticize Wood's own pilot study approach which takes as its point of reference a variety of Federal government policy statements on northern development goals. These are the externally articulated and highly universalistic statements about "National objectives for Canada in the North". They rhetorically pledge support for such things as "maintaining sovereignty over the north", improving the "viability of the northern economy", the "maintenance and enhancement of the northern environment" and "future development that would benefit all Canadians". While we accept such statements as indicative of a sincere commitment on the part of the Federal government to achieve some optimum balance between local protection and national benefit, we have to question their relevance as conceptual

guidelines in developing research models that might, with some reasonable reliability, identify local interests, needs and problems.

Indeed, the set of indicators which Wood develops as relevant to this conceptual guide are the same as those commonly employed as social well-being measures in the urban industrial context. They are:

1. Criminal Conviction Statistics (e.g., arrest rates)
2. Education Statistics (e.g., grade completion rates)
3. Income and Family Size Statistics
4. Migration Statistics
5. Political Participation Statistics (e.g., voting participation)

Indeed, Wood's himself questions the validity of such statistics in the remote northern communities from which he abstracts the data, but then defends them as having the advantage of being comparable to national averages. When Northern rates are in due course compared to national averages, it can hardly come as a surprise that the northern rates diverge significantly from the overall (meaning urban and southern) rates. But what does this divergence imply with respect to northern reality, and what is its importance to real as opposed to rhetorical policy formation? Does it mean that policy should attempt to reduce the differential, increase the differential, or ignore the differential? What do the residents of the North feel to be the meaning of such statistics when they are used by southern policy makers? Are the differentials between northern communities more or less significant than the differentials between all northern and all southern communities? And even assuming that all these interpretive problems could be sorted out, which is not possible from the standard statistical sources, what alternative indicators are perceived to be more relevant by the study populations?

The above is not, of course, meant as a condemnation of Wood, who clearly understands (or anticipates) all the points

that we are making. Rather, it is a measure of the extent to which his own observation regarding the lack of a relevant conceptual framework impaired his efforts at incremental improvement. It is therefore the aim of this pilot project to develop such a framework which can be applied to northern communities which are being impacted, or will be impacted, by various forms of industrial development.

CHAPTER TWO

METHODOLOGY

Methodological underdevelopment is a major problem for those attempting to assess the socio-economic impact of industrial development (Flynn, 1976). Olsen and Merwin (1977:43.) are very clear about this state of affairs.

As they say,

Thus far, virtually all social impact assessments have been made on an *ad hoc* (and often haphazard) basis, with no attempt to ground the work on any kind of theoretical foundation or to employ a methodology that could be replicated by others. Two serious consequences of this condition have been the absence of any continuity among social impact assessments that would render their findings comparable or cumulative, and the lack of any attempts to perform social impact research on current or completed projects to ascertain their actual social consequences.

Our discussion of the methodology of social impact assessment should begin with a definition of the concept. Social impacts refer to changes in the economic and social life of a community or region that occur over a period of time and interact with the causal agent(s) in a reciprocal fashion (Olsen & Merwin, 1977). In this pilot project we have attempted to develop a methodology of impact assessment in northern hinterland communities. This is based on the tentative model of social impact specified in

the next Chapter. Future studies which use our developed conceptual model and its accompanying methodology will be able to evaluate their utility for the study of community economic viability, social vitality, and political efficacy.

Concepts and Indicators

Within each of the communities which were the focus of our pilot study our aims were threefold. First, to examine economic conditions to determine the validity of the notion that economic behaviour could be analyzed in terms of its relation to the community's degree of economic dependence on or independence of the existing regional, provincial, or national economy. This we call community economic viability. Secondly, to study the community's patterns of social behaviour to ascertain the extent to which they could be described as "privatized" or "communitarian". This we call community social vitality. Thirdly, we explore the extent to which the community's economic viability and social vitality are associated with the mobilization of political power or processes. This we call political efficacy. We see these three areas of community activity as intersecting and interrelated in the manner which is described in due course.

One of the main purposes of our field studies in these communities was to develop further this tentative conceptual model. Another major aim was to develop indicators of the variables which reflected our theoretical concepts. From our review of the literature we were

aware of the indicators which had been used in other studies, many of which appeared to lack any such basis. Without a theoretical model many investigators of impact assessment rely on their experience in an urban environment to suggest the range of community institutional patterns and processes which could be impacted. Our literature review indicated that this results in check lists of community characteristics and activities and indicators based upon them which it is assumed will be affected by the impacting agent.

Our methodology is grounded in the conception of community process and change in which the current objective economic, social, and political structures of the community exist in a subjective social psychological climate of attitudes and values. These existing community conditions, but particularly the prevailing economic conditions, are most likely to influence the type of industrial development that will be considered for implementation. The development will have economic, social, and political impacts which will interact and be both direct and indirect. These impacts will provoke social psychological reactions among community members which will determine the community's collective responses to the impact. In their turn, these collective responses may influence the way in which the consequent economic and social changes take place.

Social impact methodology must take account of the amount of change that occurs between two time periods. We should attempt to determine how much of that change is the result of a particular industrial development as opposed to the other economic and social changes occurring in the community. Social indicators help us to meet this requirement because they can reflect change in measurable terms. The magnitude of impacts resulting from industrial development is based upon the comparison of the values of the different indicators before and after development. Olsen & Merwin (1977) provide a formula which is constructed as follows:

$$\text{Impact} = \frac{\text{Indicator at time 2 with innovation} - \text{Indicator at time 2 without innovation}}{2}$$

We should again stress the importance of indicators of community variables in this measurement process. Furthermore, such indicators should be capable of aggregation or disaggregation appropriate to the level of analysis. In effect we accept Land's (1975:17.) specification of social indicators

as components in a social system model (possibly including socio-psychological, economic, demographic and ideological aspects) or some particular segment or process thereof. Thus, for any particular social condition, social indicators are specified when some conception of the relevant social process is stated. (Italics in original.)

In an earlier work, Land (1971) specified that social indicators should be collected as time series which could be aggregated or disaggregated as required by the conceptual model on which they were based.

The Need for Social Indicators

The need for social indicators reflecting social and economic conditions emerged in the 1960's. But this need appeared to be satisfied by the economic indicators which were available such as the gross national product, or per

capita income. It was not until the social upheavals of the late 1960's, such as minority rights movements, race riots, political extremism and militancy, along with widespread evidence of social and political alienation that it became clear that economic indicators alone were not reliable as predictive measures of social change or potentially volatile social issues. There emerged a realization on the part of policy makers that social, i.e., non-economic indicators should be developed and utilized as an additional tool to help in understanding societal change. However, these changes cannot be systematically analyzed through an array of social and economic indicators that are based on normative assumptions about acceptable social goals such as those included in the statement of National Objectives, Priorities, and Social Guidelines which Scott Wood (1974) describes. As Land (1971), Henderson (1974) and others have indicated social indicators should be in the form of a time series and based on a model of a social system.

In the United States and Europe, attempts have been made to construct a set of social indicators that would more adequately reflect existing social conditions than the presently available statistical series. Towards a Social Report (1969), published in the U.S., sought to bring together available data in a manner that would provide an accounting of social conditions in that country. Over the past few years the OECD has developed a uniform system for the reporting of a wide range of social indicators to be obtained from individual respondents. In Canada, Statistics Canada now periodically publishes Perspectives Canada which contains an array of data which is an attempt to bring together available statistics in the form of a social accounting for the country. As we noted earlier, in 1974, K. Scott Wood produced a report which proposed a framework for social reporting for the Canadian North. His arguments for promoting better social indicators in that part of Canada are threefold.

The first has to do with the growth of government spending in the North and the consequent need for an adequate social data base; the second is based on the need to monitor social change and the impact of industrial development; and the third is the need for data about northern Native peoples who are being impacted by industrial development. We need not discuss his work further except to say that it shows an urban bias and that in some respects his work is similar to that of Henderson (1974) in his work on social indicators for the Economic Council of Canada, and the work of the OECD previously referred to. Another example of an attempt to organize a social reporting system in the North is the report by Palmer & St. Pierre (1974) on Monitoring Socio-Economic Change which aimed to establish these factors that were relevant to an understanding of the socio-economic impact that would occur in the communities along the route of the proposed Mackenzie Valley gas pipeline, and to design a system for obtaining these data.

Objective and Subjective Indicators

The predominant characteristic of the social indicators noted above is that they are objective in that they measure some characteristic state or condition such as income, housing density, unemployment, and other objective measureable characteristics of the social order. Such gross standardized measures ignore the quality of the individuals experience. Land (1975) suggests a model of social indicators which consists of three domains of the individual's life-space; objective conditions, subjective value contexts, and subjective well-being. As part of the objective conditions of the person's life-space he includes roles and social relations. We recognize this point in our literature review, where we state that "social phenomena consist of human activities in space". It is these activities, what people actually do in their daily lives, which is central to an analysis of community change.

Attempts to construct indicators in the two other measurement domains specified by Land (1975), which we refer to as subjective indicators, have been stimulated by the gap, in many situations, between economic growth and satisfaction with the quality of life of people facing different economic circumstances and social conditions. For example, does industrial growth, higher incomes, more and improved housing and other improved life situations necessarily agree with people's values, expectations, and aspirations, and lead to people perceiving the quality of their lives as being improved? What is the relationship between economic growth in a community, people's economic expectations and aspirations, and their satisfaction with life in that community? Marvin Olsen argues in Towards a Social Report (1969) that these objective social indicators tell us very little about the state of society. They ignore concerns with health, education, family life, culture and so on. Even in the area of income, where time series data has long been available, measures of income distributions and levels exist but we do not have measures of the satisfactions that derive from income.

The values and attitudes, expectations and aspirations, which underlie the daily activities of human beings are critical in determining community reaction to the conditions of social life. They are an important element in community vitality; they affect the social relations between its members which may enable them to formulate local policies and actions and thereby to exert some control over the nature of the changes created by impacting industry.

The social life of a community consists of activities in a number of life domains such as family, employment, education, leisure, friendship, health, housing, and so on. In each of these areas the individual guides his or her behaviour according to the appropriate values, attitudes, expectations, and aspirations learned through socialization.

A person's level of satisfaction with the existing conditions in a specific area depends upon the extent to which he or she perceives them as conforming to expectations and aspirations. In other words, it is these subjective elements that govern his or her reaction to objective conditions within that community.

Our review of the literature on social impact assessment indicates the difficulties involved in developing a methodology of this type of impact using indicators of community change and people's subjective reactions. However, if these impacts can be monitored in a summary manner in the form of objective and subjective social indicators based on the specific social, economic, and political conditions which prevail in the northern hinterland, prior to, during, and after, industrial development, the policy maker has an invaluable tool at his disposal. As Blishen et al. (1975:6.) point out

The evaluation of the effectiveness of policy and policy options is significantly enhanced by the existence of social indicators. The existence of baseline data on a range of carefully chosen social phenomena allows the detection of the effects of policy changes if the level of aggregation of the indicators is sufficiently detailed to support the development of models.

They go on to say that

As long as social indicators are collected at the national or other large aggregated level, their use in policy evaluation will remain minimal.

In each of the areas of community life specified by these researchers an objective data base is set up consisting of the available statistics disaggregated by census enumeration areas wherever possible. In addition to this data base, additional objective data are obtained from each respondent in a national sample concerning the objective conditions of their life including their activities in each of these domains. For example, respondents report family size, family life activities, employment status, employment

activities, education level, type of leisure activities, and amount of leisure time, number of friends, health status, type of housing and a number of other objective indicators of their social and economic condition. In addition, each respondent provides information on life goals, values, attitudes, and expectations, and is asked to specify his or her reaction to these objective conditions in terms of the level of satisfaction, according to a scale of satisfaction, in each of the specified domains. The methodology for the measurement of satisfaction levels has been amply reported by social scientists in other studies as well as by the York University group. Of particular interest for socioeconomic impact assessment is the relationship between objective and subjective indicators. For example, we might expect a linear relationship between income and satisfaction with financial status. Such is not the case: satisfaction with financial status depends upon initial financial aspirations, the existing gap between aspirations and present income and other variables, such as age and education. Similarly, we might expect a linear relationship between age and satisfaction with health; that is, as a person grows older and is afflicted with an increased amount of illness, as well as more severe illness, satisfaction with his or her health would decrease. Such is not the case: satisfaction with health tends to decline as a person grows older until retirement age or thereabouts when satisfaction levels off at a fairly high level.

These examples show that the relationships between objective conditions a person experiences in a community, including the roles that person plays, and that person's level of satisfaction with those conditions, is sometimes quite complex and unexpected. In all probability this would be the case in northern communities particularly those being impacted by industrial development or undergoing economic growth for some other reason. For the policy maker with some responsibility for the economic and social welfare

of these communities, a knowledge of these relationships as they affect economic viability, social vitality, and political efficacy would be invaluable.

The Subjective Indicator Debate

The argument against subjective indicators is based upon claims concerning difficulties in their measurement and their questionable utility. The difficulties in measurement have been thoroughly studied by Bradburn (1965), Wilson (1967), Andrews & Withey (1974), Andrews (1974), Campbell, Converse & Rodgers (1976), Andrews & Withey (1974), and McKennell & Atkinson (1978). As Blishen et al (1975:9.) point out, these investigators have found

that (a) people do know (or at least think they know) what they think or feel; (b) they will answer questions about these feelings and do so in a reliable way; (c) their reports are slightly biased in the positive direction but their bias has no major effect on the results and can be corrected, and (d) perceptual indicators remain fairly constant over periods of up to six months (there are no data available to assess longer periods), and a good deal of the change in these indicators over time can be attributed to changes in the circumstances of an individual's life.

The assertion that subjective indicators lack utility, particularly with respect to informing public policy fails to see the link between the individual's subjective reaction to objective conditions, and the actual objective conditions. To quote Blishen et al (1975:10.) once again, public policy

is not designed to affect perceptual phenomena in a direct manner. Rather, policy is intended to alter certain objective circumstances of people's lives, e.g., their standard of living, educational opportunities, available health care facilities, etc., in order to improve the quality of their lives. The crucial element in relating perceptual indicators to policy formation is the link between perceived quality of life and specific objective indicators. Put simply, perceptual indicators could tell policy makers what effect changes in objective indicators will have on the quality of life as experienced by the population.

For example, Atkinson (1979:16.) has shown that differences in income are related to differences in levels of life satisfaction. He points out that:

Over the ten-year period 1968-1977, the satisfaction levels of the lowest quartile of income distribution improved, those of the highest quartile worsened, while the levels of the two middle quartiles remained remarkably constant. This means that it is becoming increasingly difficult to predict levels of life satisfaction from income characteristics. In short, income appears to be losing its effect as a conditioner of life satisfaction. (*Italics in original.*)

This is surely an important finding for policy makers who are associated with income policy and economic growth. If income is losing its importance in relation to other factors as an explanation of differences in perceived life satisfaction, then it behooves the policy maker to ascertain the nature of these other factors. In Canada's north where industrial development is impacting hinterland communities, the policy maker must be aware of the relationship between objective economic and social conditions and people's subjective reaction to them. If incomes rise because of industrial development, it does not necessarily follow that people's satisfaction with their financial position or the quality of their lives would rise also.

Some Objective Community Indicators

In order to ascertain the levels of economic viability, social vitality and political efficacy in any community, we must specify the variables and their accompanying indicators that reflect these conditions. Our conceptual model provides us with a range of variables and indicators for each community, for which a limited amount of data are available from local, municipal, provincial and federal sources.

We should caution the reader that the limited amount of economic, social and political data that are presently available from existing statistical series, such as statistics

on income levels or educational levels reflect some of the formal institutional arrangements of the community. But little, if any, data are available which deal with individual behaviour - what people actually do - which reflects the less formal but often more important range of actual economic, social and political arrangements in a real community. We will have more to say about these data later. In addition, it is necessary to emphasize that an understanding of the development of a community, including its reaction to past economic impacts, requires an historical perspective so that the objective data base should include time series wherever possible.

(I) Economic Viability:

There is a range of community economic indicators which are related to economic viability, and for which a limited amount of data are available. These are:- economic base, industry ownership and control, market scope, income, and occupational structure. Each of these indicators may be specified in terms of a number of measures of objective conditions as indicated in the following list, but if we are to construct the full range of indicators noted here additional data would need to be obtained at the community level.

Objective Indicators of Community

Economic Viability

1. Bases of community economic activities
 - trapping
 - mining
 - logging
 - fishing
 - agriculture
 - retail trade
 - government service
 - etc.

2. Ownership and Control of Community Enterprises
 - source(s) of capital: individual, local group, provincial, national, multinational ownership
 - form of management
 - range of managerial decisions
 - type and extent of community consultation
3. Size
 - capital investment including local capital
 - size of labour force
 - capital per employee
4. Market Scope
 - location of markets
 - linkages with other marketing enterprises
 - supplies and services purchased locally
 - extent of local market
 - linkages with other local enterprises
5. Occupational Structure
 - occupational categories
 - source of labour force
 - economic sector
 - geographic area
 - target groups, e.g., Indian, women, ethnics, unemployed, etc.
 - ratio of male/female employment
 - recruiting mechanisms
 - productivity
 - skill levels, e.g., dependence on certified vs. uncertified skills
 - extent of occupational pluralism
 - labour - management relations
 - pension benefits
 - days lost due to industrial conflict

6. Salaries and Wages

- levels of salaries and wages
- amount of salaries and wages paid by enterprises in the community
- hours of work and seasonal fluctuation.

(II) Social Vitality:

The objective indicators which are related to social vitality for which a limited amount of data are available are: population, education, housing, health, welfare, protection, social pathology, fiscal status, communications, and leisure. Each of these indicators may be specific in terms of measures of a range of conditions existing in the community as indicated in the following list. To construct the full range of indicators additional data would be needed at the community level.

Objective Indicators of Community

Social Vitality

1. Population characteristics

- age
- sex
- marital status
- family size
- migration status
- religion
- ethnic group
- place of birth
- immigration status

2. Education

- number of schools
- levels of education:
 - primary
 - secondary
 - post-secondary
- school enrollment as proportion of appropriate age group and sex

- average number of pupils per classroom
- number of teachers
- student/teacher ratio
- per capita expenditure on education
- number of books in school and public libraries
- number and type of adult education programmes
- enrollment
- other, non-official, forms of education and training
 - types and utilization

3. Housing

- distribution by age, family, size, income and ethnic group
- sale prices of old and new houses
- rental cost
- average number of rooms per community resident and families per house
- percentage of dwellings with basic utilities
- number of "self-constructed" houses
- extent of "self repairs"
- patterns of community shelter other than officially recognized housing
 - types and utilization

4. Health

- health facilities and services
 - hospital and number of beds
 - out-patient clinics
 - mental health clinics
 - number of doctors and dentists
 - number of nurses
 - other health professionals
- average days stay per in-patient in hospital
- bed occupancy rate
- number of persons with activity limitations

- nursing stations
 - number of beds
 - number of in-patients
 - average stay of in-patients
 - bed occupancy rate
 - number of nursing visits
 - total births in nursing station or at home
 - community network of medical support other than official agencies
 - types and utilization
5. Welfare and Income Support Programmes
- number on unemployment insurance
 - number on make-work projects by project
 - number on other income support programmes
 - number on welfare programmes
 - other community patterns of welfare support
 - types and utilization
6. Protection Services
- police
 - fire
 - other forms of community protection
 - types and utilization
7. Social Pathology
- crime
 - alcoholism
 - child neglect
 - ward care
 - non-ward care

8. Fiscal Status of Community

- tax assessment
 - commercial
 - other
- debt load
- fiscal subsidy
 - government
 - other

9. Communications

- telephone
- postal service
- other

10. Leisure

- radio, T.V.
- community organized leisure groups

(III) Political Efficacy:

The objective indicators which reflect political efficacy are more limited, in range and availability, than those reflecting economic viability, and social vitality. They are political organization, participation in political activities, community voluntary organizations, government decision making bodies, voting patterns. As we pointed out with respect to the indicators of the other two community variables, each of the following indicators measure a range of community political activities. In view of the limited availability of data concerning political efficacy, additional data would be needed at the local level.

Objective Indicators of CommunityPolitical Efficacy

1. Voluntary political organization

- types of activities
- staff
- membership
- recruitment

2. Participation in political activities
 - frequency of involvement
 - influences on participation
3. Community voluntary organizations
 - service clubs
 - types of activities
 - staff
 - membership
 - recruitment
 - business organizations
 - types of activities
 - staff
 - membership
 - recruitment
4. Local and Provincial Government Agencies
 - types of activities
 - degree of autonomy at local level
 - staff recruitment
 - size
5. Other community decision making bodies
 - types of decisions
 - participation
6. Community leadership
 - sources of leaders
 - recruitment processes

Sources of Data for Objective Indicators

The foregoing provides some indication of the types of data on which objective indicators can be constructed. We now turn to the sources of these data of which K. Scott Wood (1974), mentions a number. The most obvious at the Federal government level include Statistics Canada, for which some 1976 quinquennial Census data are available on tape for enumeration areas which can be aggregated to

approximate individual communities. In the case of Indian communities, one enumeration area includes an Indian reserve.

Besides these Census data the Department of Indian Affairs and Northern Development has published an annual statistical series on band membership since 1965 and on annual events since 1968. According to a departmental report, these two series plus the Census data already listed, are the most reliable annual series available on the Native population. The band membership data are disaggregated according to age, sex, and residence.

In addition to these continuing annual series, the Department undertook a housing needs analysis in 1977 for each Indian band which included an assessment of the housing stock, occupancy, facilities, and housing needs. These data are considered to be generally reliable by the Department.

At the Provincial government level, data are available in each province from a number of provincial government departments. In British Columbia, in which the research venue for this pilot project was located, the Ministry of Economic Development has recently published the 1978 British Columbia Regional Index (the previous edition was published in 1966) which contains some of the data required for the construction of objective indicators for regions and communities.

Unfortunately many of these data are not current in that they are derived from 1971 and 1976 Census materials.

Another important source of community data is the community profiles published by the Ministry of Lands, Parks and Housing of the Government of British Columbia. These profiles contain a description of the community economic base and economic development potential plus other social data.

In these profiles the population and household data are derived from 1971 and 1976 Census materials. Additional profile data can be obtained from other provincial government

reports such as the annual report of the Ministry of Municipal Affairs and Housing and that Ministry's Annual Report of financial and other statistics of municipalities and regional districts of British Columbia, as well as the Annual report of other Ministries.

Besides these provincial government data, some community profile data can be obtained from the Planning Directors of the various Regional Districts in the province who periodically undertake studies of local industries and community services and conditions.

In their study of the statistical needs of a government monitoring system to assess the impact of the Mackenzie Valley gas pipeline, Palmer and St. Pierre (1974) examined the availability of data from present government reporting systems in the North West Territories which could be used to assess the socio-economic impact of the pipeline. These statistics concerned the employment of Native people, population change, housing, dependence on social assistance, average incomes, local community business, demand for government services, and traditional activities as well as social indicators of alcoholism, venereal disease, crime rates, child welfare and family breakdown.

Other provinces have annual or periodic statistical series which can be used to construct objective social indicators for northern communities.

Problems with the Available Data

There are four major problems associated with these data from various levels of government. The first of these concerns their reliability. Since it is difficult to obtain a clear picture of the various data collection procedures involved, we cannot comment on this important issue. This difficulty also precludes a discussion of their comparability. It is also difficult, and in most cases impossible, to use these data at the local community level. The fact that

community boundaries may not agree with those used by the social impact assessor raises difficulties in interpretation. Also, the level of aggregation of the available statistics is such that they frequently cannot be used reliably at the local community level. We also know that the currency of some of the data leaves something to be desired. In a period of social change in a community when it is being impacted by economic development, rapid changes in the community characteristics will probably occur. These changes must be monitored by a more current data collection system. Surveys based on random sampling methods may be one possible vehicle for the collection of current data, both objective and subjective.

The objective social indicators reflect some of the formal institutional patterns of a community. However, they seldom reflect, even indirectly, the informal behavioural patterns that are also indicative of economic viability, social vitality, and political efficacy, and their social psychological correlates which become evident in values, attitudes, expectations, and aspirations. These behavioural and subjective conditions can be ascertained by observation, and by the responses of community informants to questions regarding the reactions of individuals to situations of normative conflict. It is these responses that are the basis of the behavioural and subjective indicators which we discuss later.

CHAPTER THREE

TOWARDS A NEW MODEL FOR COMMUNITY EVALUATIONTHE IDEA OF COMMUNITY

In sociological theory, the concept of "community" is invariably equated with some form of social bonding. A major distinction is made between those kinds of bonds that are rooted in socially determined inter-personal reciprocity networks and those that result from economically determined inter-dependency contract relationships.

The inter-personally connected community as an ideal type is portrayed as having a population characterized by face-to-face interactions. Social integrity is believed to result from a high level of mutual agreement about values and a strongly socialized sense of reciprocal obligations. While the model does not require that each individual in the community know all others personally, inter-connected informal personal networks serve as an effective mechanism for acquiring critical information about the institutional environment, contacting key agents within this environment, distributing surplus products, and sharing skills and resources when and where this is necessary. Thus, individual members of such a community come to understand the broad functioning of their social group and they are able to exercise some direct control over it through collective participation in its functioning. Effective membership and acceptance in these communities is based primarily on demonstrating allegiance to local values and being willing to enter into the prevailing reciprocal obligations. Formalities such as certification and bureaucratic gatekeeping mechanisms tend to be ignored or subverted because personal relationships and obligations are more important.¹ Individual know-

¹For a revealing case study account of how bureaucratic organizational goals are systematically subverted in the context of a major governmental operation within a small community's information reciprocity environment, see Kaufman, 1960: Esp. pp. 75 ff, "'Capture' of Field Officers by Local Population."

ledge of, and access to, the resources and opportunities which are available locally is thus dependent upon a demonstrated commitment to one's collective obligations. For those who meet such obligations, a relatively high level of material security and economic independence can emerge, provided these individuals are also willing to develop pluralized rather than specialized skills and are flexible in their response to changing circumstances. Excessive amounts of individual accumulation of wealth are not, however, likely to occur within such a community order. This is because those who may prove more successful at utilizing their social networks to economic advantage will in turn be subjected to heightened pressures to meet reciprocal community obligations. (Tonnies, 1957; Lenski, 1966; Polanyi, 1968; Harris, 1968.)

By contrast, the economically determined inter-dependent community as an ideal type is portrayed in terms of the concept of the "Mass Society". It is held to be a product of the industrial revolution and urbanization, and this community type is characterized by a very extensive division of labour and highly structured sets of roles. Within this complex institutional matrix, interactions in all but the immediate primary groups of the family and close acquaintances tend to be mediated through formal organizational processes. Because of this complex specialization, and because the institutional order tends to inhibit and in some cases forbid individuals from sharing wealth, knowledge, skills or resources on a reciprocal basis, there is a high degree of dependence upon commercially and bureaucratically organized products and services. Thus individuals in this form of 'community' are rendered economically inter-dependent but socially isolated. There are greater opportunities for both success and failure at the individual level than in the socially bonded community. It also tends to create an environment in which all, regardless of their degree of personal success, tend to become caught up in the "privatization syndrome". This is a with-

drawal into a more personalistic pre-occupation with ambition and gratification which is untempered by a sense of collective obligation and broader social consequences. Social control mechanisms therefore become progressively extrinsic in form. This leads to a second behavioural manifestation, the "psychopathology of powerlessness", which is a rejection of the belief that it is possible for ordinary people to control or even influence their own destinies through any form of participatory politics. (Tonnies, 1957; Lenski, 1966; Polanyi, 1968; Riesman, 1953; Goodman, 1966.)

While it must be emphasized that this dichotomy is formulated in terms of abstract 'ideal types', and that a great deal of middle ground "blending" is apparent in the real world, it is also apparent that the general economic and technological forces of the past century have systematically shifted the balance in favour of the economically based community. One consequence appears to be a rise in social pathology and, in more recent times, a general search for ways to find or create a sense of 'community' through various forms of environmental engineering. This has re-opened the classic philosophical debate that began with the industrial revolution as to whether the economically based community is, in fact, anti-communitarian.

Durkheim in The Division of Labour in Society (1964), which was first published in 1893, argued that economically determined complexity and specialization provided a much more effective basis for building a socially integrated community than the "traditional" basis of social reciprocity, provided the "collective conscience" of the mass could be socialized sufficiently to act as a deterrent to excessive individualism. However, such observers as Robert Nisbet (1953) and Karl Polanyi (1957; 1968), to mention but two, have deployed a good deal of evidence and argument in support of the contention that it is quite impossible to generate such a "collective conscience" in any human order that

elevates economic definitions above social ones as the prime criteria of individual worth and meaning.

Some illumination of this theoretical debate is gained when some of the prolific literature of specific community studies is examined. These frequently attempt to answer such questions as "is it possible to maintain the 'Small Town in Mass Society'?", (Vidich and Bensman, 1958.) or can "Urban Villagers" (Gans, 1962.) continue to survive the holocaust of "progress"? A review of this literature suggests that communitarianism remains alive, if somewhat beleaguered, within various enclaves of the urban colossus; that rural smallness or hinterland remoteness is in-and-of-itself no guarantee against the encroachment of the privatization syndrome; and that the very forces that for the past century have promoted the economic over the social basis of community may now be reversing these priorities.

While we cannot engage in these debates here, or attempt to evaluate their empirical claims, it is important to note that many of the criteria that have been developed in this literature are relevant conceptual starting points for our own study. In particular, the dichotomy between "privatized" and "communitarian" social attitudes and behaviour is important in the development of our specific social vitality indicators. Similarly, the notion that economic security and independence are perhaps best achieved through adherence to social reciprocity obligations - and are most at risk whenever the individual is "freed" of such obligations through the formal provision of "professionalized" support services - offers a fruitful field for developing and testing our indicators of economic viability. And finally, the issue of how to abstract valid indications of a community's political efficacy is aided if we have some understanding of how individual's sense that they have some capacity to influence the decisions that will affect their lives in the contexts of their differential commitments to "location" (community commitment) versus "position" (career commitment).

As we have implied above, the unit of our comparative analysis is the community. Our aim is to develop indicators that allow the construction of a model that would permit an understanding of community processes in the context of situations created by external economic and social impacts. We employ three critical dimensions: (1) social vitality, (2) economic viability, and (3) political efficacy. However, in order to undertake the comparative analysis upon which this pilot study is methodologically predicated, the question of community boundary conditions must first be resolved.

The sociological dimensions of community that are briefly identified and discussed above do not provide clear guides regarding boundaries. In developing our own concept of boundary we begin with the assumption that the kinds of processes we want to study in loco exist in time and space, and can be so identified. We therefore begin to establish our definition by accepting the conventional notion of community as a settlement cluster. This pre-established boundary concept appears particularly applicable in northern hinterland situations where population clusters are typically discrete and where the life cycle of such clusters can by no means be taken for granted and is therefore often the subject of concern, conjecture, or study. However, the mere fact of a settlement cluster does not ensure an adequate boundary for the kinds of community processes we wish to study. Situations may exist where a settlement contains several distinct and mutually exclusive communities. Other examples may exist where community extends well beyond the limits of the municipal boundaries. When such examples are encountered, we shall adjust our definition of boundary accordingly.

Community Variables - General

The critical concepts in our approach to our pilot study have already been identified in the general discussion of the basic unit of analysis which is 'the community'. These are: Social Vitality, Economic Viability, and Political Efficacy.

Social Vitality refers to the process by which individuals become mutually bonded in reciprocal relationships of trust and obligation in order to share knowledge, obtain resources, and resolve mutual problems. While such processes may be characterized by different degrees of formality, their effective functioning is very important to individual survival at both the material and psychological level. We conceive social vitality as the continuum ranging from nearly total social isolation which is often labelled "privatization", to nearly total social integration, often labelled "communalism" or "communitarianism". There are observable indications of significant variations between one community and another with regard to the extent to which local norms favour communitarian interaction. We wish to identify such norms and the extent to which they are internalized by community members in order that we may be able to relate them to the other key variables.

Economic Viability refers to the ability of a community, qua community, to create and maintain its own locally initiated and controlled system of material production, exchange and consumption at a level that provides sufficient opportunities for the adequate survival of members of the community. Beyond this, such opportunities must grow at a rate which at least matches the rate of natural population increase. The concept which is critical here relates to the difference between local initiation and/or control of enterprises versus the imposition or withdrawal of economic enterprises by external agents. We are not here suggesting that the community based economic system can (or should) exist in isolation from broader economic activities, nor that anything

like total control of external economic impacts is possible or desirable. But if community is to survive and prosper, a reasonable level of local economic initiative and control of significant economic activities is essential.

The key variable of this concept of viable community economics extends along a continuum from "independence" to "dependence". Put more specifically, the variable is derived from an evaluation of the extent to which a community has the power to create for itself adequate and continuing economic opportunities, alternatives, and securities for its members, and hence have some degree of local freedom from dependence on outside sources of income.

Political Efficacy refers to the process by which a community creates and maintains some commonly accepted basis of power mobilization and distribution. Such mechanisms enable the social and economic needs of community life to be legitimately developed within the community boundaries and be effectively negotiated beyond these boundaries with agents of the outside world. Although we give it equal status with our other two critical concepts of community process, Political Efficacy is rooted in the other two dimensions.

In using the term "Political", we are not referring simply to formal or electoral politics, but rather, as our definition above implies, to the full range of activities that relate to the mobilization and utilization of socio-economic power. Like both other dimensions, community power may be more or less formalized. For example, the formal political institutions of a community such as the town council or the tribal council, may or may not reflect the local consensus, be the effective agent of mobilization, or serve broadly based community interests. Thus, our concept of political efficacy does not depend upon voting behaviour statistics. Rather, we attempt to locate community political efficacy along a continuum that focusses on the notion of "participation". We ask who participates in what kinds of

forums and to what extent the members of the community are involved in the process of determining, mediating, and negotiating critical social and economic initiatives, or responses to impacts.

Toward a Functional Model

As we have stated elsewhere, our purpose in conducting this pilot study is to begin to create and test a model of community process that accurately reflects the full range of possibilities, both positive and negative, within the particular framework of northern hinterland impact situations. Although such a model building task must inevitably begin with identification and description, it should also be able to provide causal explanations and a calculus of inference through which the effects of particular impacts could be reasonably predicted. It should ultimately be possible to study any Northern community using the model as a conceptual and methodological guide. In order to begin constructing such a model, it is important to establish a close linkage between our theoretical concepts, the variables derived from them and the indicators of those variables in terms of which the field can be measured.

So far, we have referred to a well established social theory in support of the contention that the strength or weakness of a community is intimately bound to those processes that permit a sense of local social bonding, economic opportunity and political control. We have encapsulated the considerable theoretical implications of these processes within the terms, "social vitality", "economic viability", and "political efficacy". But if we are to move from conceptualization to the identification of comparative variables and beyond, these nominal level concepts must be expressed in terms of some ordinal level variables. Thus social vitality was discussed in terms of the relative degree of "privatization" that community norms might promote or reject with respect to individual interaction. Similarly,

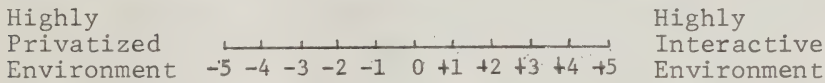
economic viability was discussed in terms of the relative degrees of "independence" and political efficacy in terms of relative "participation" in critical decision-making. In each case the concept which is derived from community process finds expression in a variable that can presumably be measured first by direct reference to those objective indicators that have already been outlined in the section on methodology and then, most importantly, by obtaining a sample of subjective responses to these objective realities.

Given that we have already established the linkage between our nominal level concepts and the derived ordinal level key variables, two important tasks remain before we can proceed to establish the tentative model that is to be applied and tested in the field. First, within each of our three conceptual categories, we must specify those indicators of variability that will best reveal the systematic values and the behavioural and subjective reactions that we have argued will provide the critical missing link in social impact model building. Since each of our three key variables finds expression through a number of social mechanisms, they cannot be measured directly but must be inferred through a series of derived "indicators". While some of these indicators are obvious and universal, others are subtle and quite local in character. It is one of the principal purposes of this pilot study to discover and to some extent test the validity of these indicators through field observation and then to organize them in a way that permits reliable inferences to be made from the resulting data base.

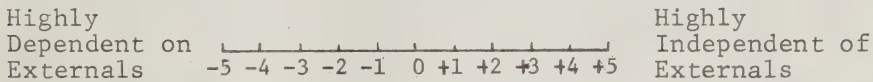
Our second task is to develop an appropriate scaling technique so that the key variables (and their derived indicators) can serve not only as descriptive, but also as comparative and projective tools. Our model construction requires firstly a qualitative evaluation of the relevant variables, and then their comparative positioning. For this task ordinal scaling is the most appropriate form. Also,

because we have expressed all our key variables in terms of binary oppositions (e.g., "independence" versus "dependence") some form of polar scaling is required. The simplest and most appropriate form of polar-ordinate distribution remains the familiar straight line with the nominal opposites at either end and the neutral condition positioned in the middle. Thus arranged, our concepts and their derived variables would appear as follows:

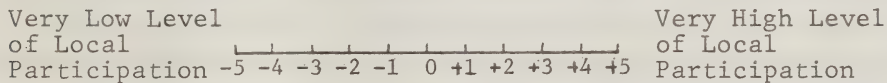
Social Vitality



Economic Viability



Political Efficacy



In addition to permitting simple intra-variable comparisons, for example, how does community A compare with community B with regard to political participation, polar-ordinate distribution also offers the potential for inter-variable comparison, for example, what is the strength of the relationship, either positive or negative, between economic independence and social bonding? Thus by comparing the inter-variability of all communities in our pilot study through conventional (x,y) or (x,y,z) Cartesian plots, the model relationships and their relative strengths may be established through regression and correlational analysis. While it would no doubt take a considerable accumulation of cross-sectional evidence, and an on-going longitudinal concern for updating the data and refining the indicators before the predictive reliability of such a model could be fully ascertained, the pilot study should be able to

establish the essential relationships and provide considerable insights into the relevance of our approach to linking objective, behavioural, and subjective indicators in social impact analysis.

COMMUNITY VARIABLES

1. Social Vitality

In the proposal for this pilot study, reference was made to the suitability of the Pacific Northwest for a comparative analysis of the responses of communities to external impacts. We also noted certain prima facie evidence concerning the kinds and range of relevant data that might be successfully obtained in the course of such a pilot study. We suspected that we would find a very wide range of difference in what, for want of a better term, we originally called "community health". Nor were we alone in this perception. Such other-wise prosaic sources as the B.C. Ministry of Economic Development's regional economic forecast for the area (The Northwest Report), the Federal Department of Employment and Immigration sponsored regional labour instability study, (Phase One, Labour Instability), and the Provincial Department of Human Resources regional study of social problems (The Farstad Report), all placed unusual stress on some intangible social processes that were perceptible in some communities but not in others.

A review of these sources together with our own impressions made it clear that the source of this perception was less the negative cases, that is, those examples of relatively low levels of "community health" which abound in the study area, as elsewhere, but rather from the communities which had high levels of community health. The town of Smithers is repeatedly contrasted to others and cited in very positive terms. A variety of outside research teams were compelled to note, often somewhat apologetically, that this intangible but attractive state seemed evident to all observers, and might well be important.

The question then becomes, is there something quite unique about some communities within the region, or perhaps the whole region itself? Or is it perhaps more likely that the predominantly urban and industrially oriented researchers had entered a situation for which they were not conceptually prepared?

Certainly the existing literature on community case studies would support the latter interpretation. Within this literature the concept of a "healthy" community is frequently referred to, but usually as an unspecified state which is seen as the ideal alternative to the highly defined and much studied concept of "social pathology". Many social scientists have used the medical model, which infers good health on the basis of a lack of evidence of illness, and have therefore concentrated upon evidence of social pathology rather than the opposite.

While we accept the assumption that such conventional indicators of social pathology as high rates of crime, suicide, divorce, alcoholism, and battered children or wives, are clear enough manifestations of social sickness, we do not accept the narrow "social problems" approach as being very useful in determining the basis of community health. We take this position not only because the study of symptoms does not always lead to the identification of causes but also because we have observed that "health" is not so much the absence of specific and identifiable "illnesses" as it is the proper functioning of a series of vital processes. It is with this understanding that we have attempted to approach more precisely the issue of understanding the existence of greater or lesser levels of community "health" by seeking indicators of social vitality and hence strength. That is, we have sought for those indicators which when abstracted and conceptually inter-related would allow us firstly to comprehend the particular basis of a community's social integration and also, secondly, to be able to predict something about the relative strength or

fragility of a community's ability to adapt to, demand adaptations of, or if necessary, expel potentially destructive impacts from outside.

Such an understanding, once it is achieved, might well go some way towards helping those who must frame policy guidelines for developments which are intended to create social vitality where very little was present initially.

There is an extensive literature that supports our hypothesis that social vitality, particularly in discrete communities, results from the possibilities which exist for individuals to locate themselves within a community framework that allows them to experience direct and positive social reinforcement. This allows them to achieve support in the process of personal identification, problem solving and also gives them access to essential knowledge and resources.

It is therefore the real, local and observable forms of behavioural and subjective expression of these processes of social interaction that we have sought to identify and abstract as significant indicators of social vitality. To do this we have used open-ended field study approaches and modified both our theories and our approaches, as this has been dictated by our expanding experience. We list our results in the form of a series of areas which we see as providing potentially significant variables.

Behavioural and Subjective Indicators

Assistance norms.

Ascertain the preferred first source of:

1. Help and advice on personal problems - friendship network (beyond nuclear family) or professional service.
2. Information on job (business) opportunities - friendship network or institutionalized services.
3. Acquisition of skill to add to current repertoire - locally known practitioner or a formal educational service.
4. Information on new regulation - friendship network or contact appropriate agency.
5. Getting labour for a repair job; an addition to a building; brief period of work overload (e.g., "haying"): friendship network, or employment agency, or contractors.

Labour transaction norms.

Ascertain what, in any specific community, is the preferred way to deal with payment for work performed that is less than "regular" but more than trivial:

1. Whether payment is in cash, in kind, or either, depending on "the circumstances".
2. Whether such "circumstances" hinge on the relative access to cash or alternatives to cash (time, skills, commodities, tools) of the two parties.
3. Whether the amount of payment (either cash or kind) is primarily governed by "going rates", quality of work done, or relative needs of "employer" and "employee".
4. Whether terms of payment are discussed before work starts, after work is completed, as the work proceeds, or is seldom discussed at all.
5. Whether, in the event of dispute over terms of payment, it is usually because too much is offered, or because too little is offered.
6. Whether, if terms are disputed, resolution is sought through informal appeals to community "norms", or more formal appeals to mediating agencies.

7. Whether, if someone asks someone else to do a short job for him primarily because he lacks the skills to do the job, it is expected that he leave the job to the one that has the skills, or it is expected that he work alongside the more skilled to "keep him company" and/or "to begin obtaining the missing skills".
8. Whether, if the payment obligation is in kind, this is seen as a direct obligation to the individual who "helped out", or it is less directly to the community as a whole. (The latter is known as "circular reciprocity", i.e., everyone who "helps out" when requested will in turn be "helped out" when he/she makes requests without any direct obligation to the individuals concerned.)

Social Problem Resolution norms.

Ascertain which is the preferred way to deal with:

1. Local children who start getting into trouble:
 - (a) disregard the matter unless one is related
 - (b) invoke institutional authority (police, etc.)
 - (c) apply informal community sanctions whenever the opportunity arises
2. Those with drinking problems:
 - (a) disregard unless related
 - (b) invoke institutional care
 - (c) supply or obtain informal community support
3. Dangerous drivers, wild game hogs, etc:
 - (a) disregard unless related
 - (b) invoke institutional authority
 - (c) apply social sanctions
 - (d) if persistent after social sanctions, apply some form of vigilante action
4. Unwed mothers:
 - (a) disregard unless related
 - (b) invoke institutional care
 - (c) offer full social support
5. Someone engaged in legal but "sharp" business practice, or someone who takes advantage of another's vulnerability:
 - (a) disregard unless related
 - (b) apply social sanctions
 - (c) if persistent after social sanctions, apply some form of vigilante action

Conflict Resolution norms.

Ascertain the preferred way of resolving conflicts over:

1. Responsibility for repairing common fencelines; convenience access to one property across another; entry access to beaches; rivers for fishing; hunting areas; small damage to property by livestock getting through fences; location of unsurveyed property lines; water usage rights; trap-line boundaries; etc., either:
 - (a) Appeal to formalized mediation mechanisms, e.g., lawyers courts, professional surveyors, jurisdictional authority.
 - or,
 - (b) Appeal to custom, tradition, others in the community whose "authority" derives from common agreement and respect.
2. A dispute between outside authority and local traditions or priorities, e.g., land use limitations, enforcement of new fishing or hunting regulations on those who claim prior or "traditional" rights:
 - (a) No resolution possible, resentful acceptance.
 - (b) Individual appeals through judicial or bureaucratic mediation mechanisms.
 - (c) Collective appeals through judicial or bureaucratic mediation mechanisms.
 - (d) Collective show of political strength through mass petition, demonstration, confrontation, media manipulation, use of force in various sequences as required and within limits set by the importance of the issue.
3. The outside imposition of an unpopular corporate presence upon the community:
 - (a) No resolution possible, resentful acceptance.
 - (b) No point in resisting, make the best of it by adapting.
 - (c) Try to get rid of the presence through collective resistance of either the passive or active kind.
 - (d) Bring collective pressure to bear to "indigenize" the foreign presence.

Status Recognition and Mobility norms.

Ascertain the extent to which:

1. Community recognized status differentials tend to reflect:
 - (a) Claims to exclusiveness (social distance maintenance).
 - (b) Demonstration of commitment to community processes, values, reciprocity obligations, and altruistic leadership.
2. Where status recognition is based on exclusiveness, the basis of differentiation is predominantly:
 - (a) Differences in wealth.
 - (b) Differences in institutional association.
 - (c) Differences in formal credentials.
 - (d) Differences in family (or clan) membership.
3. Mobility opportunities are most typically attained through:
 - (a) Universal accessibility, contest accessibility, or sponsored accessibility.
 - (b) Mechanisms that are predominantly internal, or predominantly external to community.
 - (c) A decision to abandon local reciprocity obligations, or a willingness to fulfil local reciprocity obligations.
 - (d) Paths that are predominantly location centred (remain intimately connected to the community), or predominantly career centred (may lead anywhere that occupational opportunities present themselves).
 - (e) An expansion of occupational positions, or an expansion in the accessibility to resources.
 - (f) The fulfillment of specialized preparation, or by remaining flexible and acquiring broad based experience.
 - (g) By meeting universal standards of proficiency, or by meeting local standards of utility or computability.

Proprietorial norms.

Ascertain the extent to which the accepted view of private ownership of property is one in which:

1. It is viewed as a generally good thing.
2. It is viewed as generally a bad thing.
3. It is viewed as good with respect to consumer goods, not so good with respect to productive property.
4. Individual property holders are seen as "custodians" rather than "possessors" of their property.
5. Ownership must take into account certain broader community or public needs, even rights, to use or access.
6. Ownership bestows exclusive rights to use or access.
7. In examples of co-operative ownership in the community, takes a formal or informal, approach to admission to 'membership'.
8. Reciprocity is (or is not) practiced with respect to sharing tools, implements, recreational equipment, etc.

Induction, Socialization, and Rejection norms.

Ascertain the extent to which with respect to outsiders who come to live in the community:

1. The sort of sponsorship required for community acceptance is through:
 - (a) Acceptance by virtually any community member or group in good standing.
 - (b) Positive recognition by a notable community leader.
 - (c) The right kind of universally valued external credentials or status symbols.
 - (d) The right kind of institutional associations (.e.g, working for the right organization).
2. Community concern is based on newcomers having long or short term commitments to the community with special reference to:
 - (a) Branch operational managerial or technical staff.
 - (b) Construction workers on contract jobs.
 - (c) Others who appear to be attracted by potentially short term economic opportunities.

3. Community efforts are made to acquaint newcomers with what is expected of them in the way of "fitting in" under the following circumstances:
 - (a) Those who don't seem very concerned about fitting in.
 - (b) Those who seem to want to fit in but keep putting their foot in it, one way or another.
 - (c) Those who may or may not be very concerned about fitting in, but are likely to be around for a while anyway (schoolteachers, bank managers, etc.).
4. Rejection mechanisms are applied for those who clearly can't or won't "fit in", such as:
 - (a) Ignoring them (social isolation).
 - (b) Applying social sanctions (ostracism).
 - (c) Applying economic sanctions.
 - (d) Institutional intervention (e.g., go to the top and have individual removed from post, transferred, or contract annulled).
5. Some categories of people would, under no circumstances, ever be accepted into the community because of:
 - (a) Racial distinctions.
 - (b) Ethnic distinctions.
 - (c) Social class distinctions.
 - (d) Economic class distinctions.
 - (e) Sectarian distinctions.
 - (f) Demographic distinctions (age, sex, health).
 - (g) Normative distinctions.

Interpretation of Indicators

In strongly communitarian situations, the friendship network is relied upon to provide assistance in obtaining information, services, and access to resources. For such a network to operate it is not necessary to know the required key contact personally, but it is necessary to be introduced to such a contact as an "insider" by someone who can elicit a sense of obligation to help from the appropriate community member. By contrast, in privatized situations, individuals are unable to gain access to this kind of assistance except through formal institutional channels. One of the most consistent indicators of a community with highly privatized norms was a strong positive response to the question, "Is there a need for more agency type services in the community?" The irony here, however, was that these same communities already had a much higher level of such services than did more communitarian settlements which often indicated that they had enough, and in some cases, too many, such services.

We were able to abstract the labour transaction norms by focussing our questioning on the functioning of the more voluntary, and hence locally responsive, "extra work" situations. This revealed a very clear distinction between those communities that upheld the privatized "moonlighting" practice and those that perceived such part-time extra work as part of a reciprocal "work bee" tradition in which assistance and obligations, rather than advantage and disadvantage, were being exchanged.

The privatization ethic was clearly evident where community norms support extra work being done for cash payments according to going rates that are contracted in advance or mediated formally when in dispute, and where the work contains little or no social contact between contractor and contractee. The opposite characteristics are, of course, indicative of communitarian norms. Within the communitarian ethic, generally the exchange is not between contracting

individuals but between individuals and the community as a whole. The basis of such an exchange is not the market mechanism but an ethic of reciprocity that most ideally sees the "obligation" that is incurred when help is provided as being to return, in kind, a service to someone else within the community, not necessarily the individual who helped first. Hence the term "circular reciprocity".

Apathy towards, or fear of, "getting involved", in the community's social problems is one of the characteristics of privatization. Recently, much has been made of this attitude in some big cities where accident victims are ignored and observers of violent crimes fail to report them. The alternative communitarian norm insists that all citizens become involved in attempting to overcome social problems. In Smithers, our most highly communitarian settlement, the police found it hard to identify examples of juvenile delinquency. The reason may have been revealed inadvertently by a local shopkeeper who reported on how he dealt with the common juvenile delinquency problem of shoplifting. He told of how he spotted a 13-year old boy stealing a transistor radio at the other end of the store. It was lunch hour on a school day so the proprietor, who was busy at the time with a customer, simply phoned the school principal who intercepted the culprit. In due course, the young man returned the radio on his own. There is no apparent need for a private security agency in this community, though this is one of the fastest growing services in many other nearby settlements. The locking of doors was also observed to be an uncommon event.

In the same community, the school authorities actively encourage any girls who get pregnant to finish their year. They reported no stigmatization by staff or other students.

The communitarian instinct for informal and direct forms of social support for those who need it can also manifest itself as informal and direct forms of social control for those who seriously transgress the established ethic. In

one strongly communitarian venue, a relative newcomer engaged in some quite legal, but very "sharp" business practices with a local man who was mentally handicapped. The community was outraged and when legal advice revealed "there was nothing that could be done now" the transgressor was subjected to vigilante action and was deprived of the legal documents through which he had acquired the hard earned land of a second generation community son. The newcomer subsequently made complaints to the police but because no witnesses could be found, nothing further occurred.

The private ownership of virtually all property is recognized as one of the basic institutions of capitalism. Modern communism rejects private ownership, but unlike the kind of 'communitarianism' to which we refer limits this rejection to producer goods (capital) and both allows and encourages the private possession of consumer goods. Within the "pioneer" North American context, communitarian norms were associated with a positive attitude, toward private ownership of both producer and consumer goods, but with significant restrictions on the unmediated rights of owners to exclude or deny broader "legitimate" access and utilization. Modern industrial privatization is often associated with a very strong attachment to property rights as both the symbol and the source of the only kind of security which is available in the absence of social supports, and as a necessary insulation between self and the assumed hostility of others.

In our study we discovered examples of communities with a combination of privatized paternalistic and communitarian attitudes toward private ownership. Some highly informative insights were obtained in venues which were largely communitarian but contained a few prominent owners with strongly privatized attitudes toward their property. Having openly refused to adhere to the "reasonable access and use" norm, these individuals were clearly suffering both socially and

economically as a consequence of the escalation of sanctions such as ostracism and economic rejection. Some highly illustrative stories were told about the fate of earlier residents in the community who mistakenly "thought fences were for keeping people out rather than cattle in".

When we collected data on socialization and rejection norms in the more highly privatized communities, we found that the routes of entry, the mechanisms of socialization, and the means of rejection should socialization fail, were all less well evolved. Within the highly communitarian settings it was not so much the openness or closedness of the community that were decisive for entry of new members but rather an early indication that they had adopted the dominant ethic. For those communitarian communities that had relatively high sponsorship requirements, there was perhaps less need for rejection mechanisms. In the most communitarian of our examples, the community of Smithers, initial induction was very easy. Virtually any community member in good standing could facilitate the entry of a newcomer, who could then be welcomed very openly. But if after a reasonable time had passed, and a concerted effort at socialization had failed, powerful rejection mechanisms were invoked. Indeed, there was almost a prohibition on our even talking to certain individuals who were alleged (and we were able to confirm the allegations) to have flaunted the established social ethic. For such people, survival within the range of community influence would only be possible in the long term if independent sources of cash income were available and if solitude were their desired life style.

Status recognition and social mobility norms hinge on attitudes towards exclusiveness versus participation. The former reflects privatization and the latter communitarian norms. An exception is the paternalistic and almost feudal community such as the Hazeltons where exclusiveness based on family or clan heritage is compatible with strong community

ties and reciprocity obligations.

The mobility mechanisms that most clearly reflect communitarian norms are those that rest predominantly within the community's own jurisdiction and which do not demand the abandonment of reciprocity norms in order to pursue an education or career that takes one out of the community permanently.

Similarly, universal access to opportunities reflects a communitarian sense of equity, while various forms of competitive or sponsored access to opportunity reflects the exercise of privatized options. Since continuing allegiance to location (community), especially in the volatile economies of the northern hinterlands generally requires a range of skills and flexible attitudes toward both work and fluctuations in occupational status. Status recognition or mobility norms that rest exclusively on formal credentials or conspicuously high levels undercut communitarian norms.

2. Economic Viability

The need to obtain minimum threshold levels of material subsistence in order to ensure physical survival, biological comfort, and cultural definitions of satisfaction is universally recognized. Public concern about the levels at which this threshold can be deemed to exist lies behind such definitions and debates as the level of "the poverty datum line", the "minimum wage", and means tests for social welfare. But these concepts apply to individuals, or at most, families. Is it possible to evolve concepts about the economic viability of a community which, after all, has no compelling biological imperative to maintain it in the same sense that man must maintain life?

Our answer is yes, and in more than a symbolic sense. Within quite wide limits, communities will indeed reflect in the main the dominant norms of those who cluster together within them. They are able to organize to obtain or retain

economic viability and independence of action by arranging that they have some control over the sources of their material security and a range of alternative opportunities. Economic viability is therefore not simply a measure of affluence, though clearly a minimum level is required to keep above the threshold of non-viability. Rather, it reflects the existence of certain opportunities for freedom of choice without which survival becomes entirely dependent upon economic and decision-making forces that lie outside the control of those who will be affected by such changes.

This concept of the threshold that divides economic independence from dependence is perhaps most clearly visible in the case of individuals who, because they have limited economic and social options, become permanently dependent on social assistance and thereby become involved in the "welfare syndrome". Similarly, a community that is entirely, or very largely, dependent upon one or two large, externally controlled sources of economic survival tends to lose or be unable to develop, the ability to generate internal alternatives. This is true regardless of whether the outside source of dependency is a single private sector employer or the public welfare system. Though the levels of average affluence will be very different, the very fact of dependency tends to undercut the development or maintenance of processes by which the community can evolve a sense of collective security, initiative, and potency. At the same time, the individuals perception of vulnerability, apathy, and powerlessness within a privatized and uncaring community is much reinforced.

This last point is illustrated in the many examples of satellite communities that tend to spring up on the periphery of single industry company towns. Though the company town is often obviously well planned, developed, and maintained in the physical sense, the residents tend to experience the power of the company as omnipresent and are constantly reminded of their dependency upon it in such physical situations as the

official shopping centres, schools, and recreational facilities. As one of our respondents, who had moved from Kitimat to just such a peripheral community near Terrace put it, "Better a little less show and a little more independence in a place where we can breathe and do our own thing." He went on to explain that back in the official company town, because of the company anti-nepotism rule, his wife was not allowed to work as a secretary for the corporation which employed him; because the company employed a recreation director, his children had to suffer an over-organized recreation system; and because of company imposed landscape zoning restrictions, he couldn't grow a vegetable garden in his back yard. Now he lives in a house which seems to be in a constant state of renovation, his wife has opened her own retail store, and the children earn spending money by tending the half-acre truck garden "out back" and sell the produce locally. "Now I get along with the company a lot better," the informant reported. "They know I can tell them to get lost any time they get too uppity, and I know they will give me extra leave time to work on the house or garden when I need it."

The respondent's last point is one worth emphasizing as its implications are overlooked by most, but not all, of the employers in our study region. Our data indicates that labour relations and particularly labour stability improves markedly as the community's level of economic viability increases. It seems that resentments tend to fester and flourish in remote work settings when residents feel "locked in" to a situation of economic dependency in which they are denied the challenge of seeking economically viable alternatives. By contrast, when a plurality of local alternatives exist, those who work for external economic organizations tend to see this activity as only one alternative amongst many. This perspective gives them a sense of locally based independence and security which encourages them to make demands upon their employers in regard to issues that have local

relevance. An example is the right to use company equipment on a weekend. In addition, employees in such a situation are more likely to exercise initiative and responsibility on the job. For this to happen the company must respond with flexibility to local needs. We observed that the larger and the more centrally controlled an outside organization is, the less likely it is to permit local flexibility and the less it seems to appreciate the value, to itself, of increased levels of local initiative.

The issue of the extent to which such highly centralized non-local or non-national organizations should in principle be allowed to continue to dominate the Canadian corporate landscape has generated one of the most contentious political debates of our time. But in the particular context of northern hinterland economics, the reality is that this form of inflexible organization poses immediate practical problems. What is often at stake is an important aspect of the quality of life in the local community, and perhaps also its long term survival. But this is not a one-sided issue. The organizations themselves survive better and more profitably if they are able to understand and respond to the local human aspirations of their labour force.

We have abstracted and isolated a number of indicators of the economic situation that are perceived by those most involved to affect the viability of their communities. These are not like the lists of indicators which are conventionally used. The latter rarely, if ever, make the important distinctions that we do between locally controlled or influenced and externally controlled economic processes. We recognize the accounting problems that are associated with evaluating in concrete terms the economic value of such subsistence activities as sharing labour, knowledge, or capital goods such as tools on an informal and reciprocal basis, but we think it important to evaluate them in social terms, nevertheless.

This local economy can influence in important ways the quality of life, and even, sometimes, of survival, in the

northern hinterland. It is important to recognize that these economies are not to be viewed merely as "local colour" but should be recognized as important life support systems in many situations. Therefore, indicators which are based upon them are likely to be particularly informative.

Behavioural and Subjective Indicators

Learning and skill acquisition opportunities:

Ascertain the extent to which the community:

1. Provides sufficient formal educational opportunities.
2. Provides sufficient on-the-job learning opportunities.
3. Depends on sending its young out for education and skill training.
4. Provides later employment opportunities to those that do go out for further educational or skill training.
5. Needs to attract outsiders with the required education and skills to fulfil the available job requirements.

Attitudes toward criteria of competence:

Ascertain the extent to which it is better to employ someone:

1. Who has a lot of local experience but not very much in the way of formal education for the average job.
2. Who has very good educational credentials but comes from outside for the same sort of average job.

Attitudes toward economic security:

Other things being equal and given the choice, ascertain the extent to which it is better:

1. To work for yourself at one or more things.
2. To work for wages or salary.
3. To either take a job or work on one's own initiative, depending on the opportunity situation at any given time.
4. To intentionally try to mix employment with one's own initiatives in a way that one complements the other.
5. To work for an outfit that has many other operations besides the local one, or to work for an exclusively local concern.

Perceptions of opportunity:

Ascertain the extent to which outsiders, locals, (or neither):

1. Have a better chance of getting good jobs in the community.
2. Have a better chance of "making it" in their own self-employed initiatives in the community.
3. Benefit most from the exploitation of the natural resources in the region.

The value of locally available resources, whenever locally produced (subsistence) goods and/or labour and implement exchange are available, ascertain the extent to which for local people:

1. How much more it would cost to live (cash) if locally available natural resources or produce were not available.
2. To what extent is exchanging labour and sharing tools and implements with others in the community necessary for keeping financially afloat.

The value of government transfer payments and administrative spin-off, ascertain the extent to which:

1. It would make a difference to the economic circumstances of the community if welfare, U.I.C. and various "employment creating" government grants and programmes were withdrawn.
2. It would make a difference to the economic circumstances of the community if all the various governmental administrative activities were moved out.

Perceptions of economic imbalance and need:

1. What in the opinion of its residents is most required to improve the economic situation of the community?

Consumption and service needs:

With respect to purchasing needed goods and services:

1. What kind of goods are most in demand but least available?
2. What kind of services are most needed and least available?

Inhibitions to local initiative:

If a local initiative is attempted, what, in general, are the most serious stumbling blocks?

1. Lack of capital
2. Lack of access to technology
3. Lack of local supports and services
4. Lack of locally available labour
5. High wage expectations established by some major employer
6. Local zoning or business practice restrictions
7. Unavailability of appropriate land or buildings
8. Government policy
9. Control of all such opportunities by outside interests
10. Control of all such opportunities by a local clique who do not want competition or change
11. The general apathy of the local population
12. Inability to gain access to the necessary resource base
13. The likelihood of being "pushed out", if successful by unfair competition.

Criteria of success for local initiative:

To what extent do any of the following factors contribute to the ability of a relatively small, locally initiated operation to successfully compete with large, outside controlled operations?

1. Flexibility in product or service line
2. Ability to better service local markets
3. Ability to combine or integrate aspects of the operation that are normally separated for administrative or (union) jurisdictional purposes
4. Flexibility on hours of work
5. Flexibility on "leaves" to allow employees to maintain their own alternative economic activities such as seasonal fishing, trapping, agriculture
6. Willingness to share resources or equipment with community others, including employees for their own alternative economic activities
7. Co-operative ownership and/or control
8. Ability to access critical decision-makers or opinion formers through local networks

9. Willingness to employ those without formal credentials and/or train those without previous skills
10. The achievement of a high level of labour stability due to any or all of the above factors
11. The ability to "contract" labour in a more rational way and at lower total costs due to any or all of the above factors
12. The willingness to share benefits locally and hence to claim local reciprocities even if the product or service is not competitive at its nominal price
13. The ability to accept or offer payment in kind as well as conventional money transactions
14. The ability to ignore, subvert or bypass universalistic regulations that seem inappropriate in the local context
15. The ability to exploit "traditional" skills that can only be found, or authentically portrayed, in the local context
16. The ability to exert powerful moral suasion or social sanctions on outside competitors, or potential competitors
17. The ability to exercise sophisticated political tactics in obtaining the appropriate policy environment for economic success

Interpretation of Indicators

The industrial and technological revolutions with their increasingly elaborate division of labour have led to an increasing emphasis on formal certification as a universal way of ensuring basic levels of competence. However, production and distribution on a smaller scale generally requires a wider range of skills, diversified activities, and local on-the-job learning and demonstration of competence. Local level economies tend to emphasize the ability to adapt and apply current skills, add new skills as they are required to one's repertoire, and attain work goals by routes which are often unorthodox and innovative.

Because of this, the continued viability of a local community economy requires that it recruit new members as much as possible from the local pool of abilities, and that formal certification and credentials be de-emphasized. The formally certified skills available in elaborate educational systems tend to be so highly specialized that they do not produce the "well rounded" range of skills and attitudes that are appropriate at the local level.

A generalized capacity to be adaptable is the attitude that is consistent with small-scale, pluralized local economic activities. If local young people perceive "security" and "opportunity" as achievable only through the acquisition of specialized certification and conforming to corporate career norms, then the economic activities which are available locally are not likely to hold or to attract capable people, even if they have local commitments initially. If, however, personal security and rewards are seen to be intrinsically part of the local environment and its people and their values, then people will also tend to perceive the advantages to be gained by adapting to and exploiting resources and potentialities that are available locally. In consequence, the viability of the local economy will be enhanced.

Such an economy requires that local resources be accessible

to people and organizations in ways that do not require highly specialized organizational skills or access to large amounts of capital. In recent years, local economies have often been weakened by various government policies aimed at encouraging more efficiency in resource utilization and/or more productivity in exploitation. This has led to the consolidation of smaller labour intensive enterprises, forced higher levels of capital investment, and encouraged "scientific" management. Frequently this has seriously undermined local economies that were once viable. In addition, the intended goals of increased efficiency and productivity have not, in many cases, been achieved, in part because these policies have ignored the value of local economy.

The preservation of the local infrastructure of economic services encourages a flourishing of local economic activity. If externally controlled impacts insist on providing all their own services and placing all their purchasing in the hands of outside agents, the consequence is often that over time these services and supports will be eliminated from the local scene, to the ultimate deprivation of all, including the impacting industry.

Similarly, the value of local subsistence or non-monetary exchange relations can be an important element in economic viability. If local enterprises cannot meet externally established standards of pay, working conditions, and fringe benefits, they may be viewed by outsiders as "marginal", and therefore not important enough to attempt to preserve. In several of our more viable communities, such "marginal" labour conditions existed. But workers in these enterprises were also allowed to utilize company equipment in their own alternative economic activities, and given time off when these other activities required it. As a consequence, this labour force enjoyed a number of other non-cash or non-institutionalized benefits that in effect put its members in a very reasonable income category. Such situations may be

perceived as verging on feudal paternalism rather than co-operative collectivism, but the existence of a variety of further economic alternatives ensures that the exploitative potential in paternalistic relationships is unlikely to be realised.

The form that government transfer payments takes is also a significant element in encouraging or discouraging economic alternatives. In our study, we discovered that only a very few of these schemes favoured the local economy. LEAP sponsored initiations were notable in this regard. The vast majority often had the quite unintentional effect of increasing local dependence on outside economic support and controls. Direct welfare is, of course, clearly a transfer that tends to perpetuate dependency regardless of its various particular forms. Again, the LEAP approach of providing local initiative groups with seed funding to help them prepare, or hire the appropriate expertise in preparing, their final proposals is important since it enables them to compete more equally with the more sophisticated and experienced outside competition. But in the final analysis, the whole current philosophy and approach to transfer payments and outside initiatives might well need to be altered if local economic initiatives are not to be undermined. Again, the conventional indicators do tend to be harmful in this regard because they affect the evaluative criteria in terms of which transfer payments are conventionally distributed.

3. Political Efficacy

The political sphere is broadly understood to involve the analysis of the mobilization of power and its deployment in support of particular interests. When divergent interests with differential power bases come into conflict, politics is the business of obtaining a resolution of the conflict. The political tools employed in this process are mediation, negotiation, mystification, or coercion. The mechanisms through which these tools are applied range from bureaucratic or judicial decision-making, constitutionally established political processes, and beyond these, to direct personal or group action. As one moves from mediation to coercion and from bureaucratic to direct action, the nature and intent of the power base become increasingly visible. So, too, do the costs and benefits become more clearly understood.

Within the context of our communities, effective political processes need to be directed in two opposite but essentially interrelated directions: those that are directed toward the establishment of a set of clearly understood and agreed upon local interests, and those that are directed toward ensuring that these collective interests are effectively deployed to resist or modify the encroachment of outside interests. In the first process, that of generating an internal consensus, efficacy can be measured most logically in terms of the relative strength of communication and mediation, for without effective internal communication and mediation mechanisms widespread participation in and later support for the critical decision-making process cannot occur. With respect to the interface with externally controlled impacts, efficacy is most logically measured in terms of the ability of the community to ensure that its interests are recognized throughout any negotiations. It is, of course, particularly important to guard against the potential that large external interests have for political or economic co-optation. This means that the community in its own interest, should choose representatives

who are committed primarily to local interests. Such representatives need also to have the skill to evaluate the biases of "experts" whose professional or personal orientations may incline them towards universalistic rather than communitarian assumptions.

As an alternative, one of the more politically effective communities in our study (Aiyansh) has consistently chosen to utilize bureaucratic routes of negotiation and has selected various forms of expert assistance very carefully in order to promote their interests in negotiating with external agents. Their understanding and control of this process is impressive, and if any co-optation has occurred it has been in the opposite direction. This process has been described by one observer as the Nishga's uncanny ability to "indigenize" outsiders whom they select to represent their interests.

But in all cases, local level political efficacy rests upon an ability to create and demonstrate solidarity. However, we hypothesized that such solidarity is not likely to develop unless at least one of our other two community process variables is present, that of social vitality. We report later on a test of this hypothesis, along with several other associational hypotheses.

We have continued to attempt to analyze those factors that seem to be important in distinguishing the mechanisms which are most effective when communities seek to formulate commonly agreed upon positions, and to act on these convictions in subsequent negotiations or confrontations with possible impacting forces.

The key concept is "participation". This activity may take many forms but it does not always need to be overt. For example, communities recognize that some members are by temperament "joiners", and active participators. But these may be no more effective than other individuals who monitor

political processes regularly without being directly involved in organizational membership, or having a high public profile. For such people a phone call or two to the right contacts can put into motion activities that may effectively influence the course of decisions and the outcome of debates. This kind of leader, and we found a number of examples during the field study, relies for his political efficacy upon informal communications and networks rather than on institutional support. We observed that the community at large is often very dependent on this form of initiation of activities to ensure broad participation on those issues that are critical. The mechanisms by which a community identifies and utilizes its really effective political leaders may reflect the formal institutional structure. But they may reflect a far less formal recognition that certain individuals are widely regarded as being worthy of trust, and have displayed consistently both wisdom and commitment in their participation in community affairs.

Behavioural and Subjective Indicators

Participation norms:

To what extent:

1. Is it necessary to get appointed or elected to some official body or board to effectively exert influence in the community?
2. Are there examples of important decisions being changed through broad based community expressions?
3. Were these expressions manifested and to whom were they directed?
4. Are there some people in the community who have a significantly greater effect on important community related decisions than others?
5. Do these people have the same social connections and/or economic interests and/or educational backgrounds?
6. Can anyone in the community talk easily with these people? Does it do any good to talk to them?
7. Are the people who most involve themselves in trying to influence community related decisions primarily long term residents or are they relatively short stay people?

Internal communication norms:

To what extent:

1. Are important decisions affecting the community widely disseminated?
2. Have the various media been most effective in alerting either the majority or significant minorities within the community to forthcoming public issues?

Internal mediation and resolution norms:

1. With respect to those important decision issues over which there is significant disagreement within the community, to what extent is the resulting decision:
 - (a) Delayed until almost everyone is satisfied with either a compromise or, where this is not possible, an acceptance of the final decision as the best course of action?
 - (b) Reflective of the interests of one clique only?
2. To what extent, are public issue disputes between factions within the community resolved through:
 - (a) Patient diplomacy on the part of those few community members who are mutually trusted and who have in the past demonstrated wisdom, foresight and impartiality.
 - (b) Public relations campaigns.
 - (c) "Expert" negotiators.
 - (d) Some form of opinion sampling (either formal or informal) on the general understanding that the majoritarian position will be accepted and stand for the community as a whole.
 - (e) Leaving the final decision to the formally institutionalized community leaders (e.g., mayor and council, band council).

External representation and negotiation norms:

1. With respect to those important decisions over which there is widespread agreement amongst ordinary community members but serious disagreement with some outside agent (e.g., government, corporate head office), to what extent do the community's official spokesman:
 - (a) Invariably support the community position?
 - (b) Quite often side with the outside point of view?
2. In the past, to what extent have public issues disputes between the largely unified community opinion and the contrary wishes of an outside entity been most effectively "negotiated"?
 - (a) By having the official community representatives negotiate with the official outside entity representatives within the appropriate bureaucratic forums and frameworks.
 - (b) By employing experts to "research" the issue and render an informed opinion to higher authority.
 - (c) Through direct political quid-pro-quo bargaining.
 - (d) Through an overt display of community "solidarity" clearly intended to reveal that any decision that flagrantly ignored the local community position would have continuing future consequences that had better be taken into account now.

Interpretation of Indicators

As we have noted, political participation may take many forms. The denominator that is common to all significant forms of participation is that individuals should have access to the political decision-making process. The political structure must therefore be open to the process of communicating critical information in ways and within time frames that permit the evolution of an informed response. Both the formal media and informal personal networks tend to become involved in all stages of this process.

It is noteworthy that Smithers, the community in our study which is most politically effective, has exceptionally open and effective sets of communications at the levels of both the formal media and informal networks. We observed there that almost invariably the informal networks conditioned or at least influenced the formal institutions. Specifically, the local newspaper and radio stations were unusually open and active because the community insisted that they should be. Several previous editors of the local newspaper had ignored local values on this matter and had ultimately been excluded from the community as a result.

Wide access to, and local control of, the mechanisms of internal mediation and external negotiation are also crucial indicators of political efficacy at the local community level. The communities in our study that demonstrated the lowest levels of political efficacy all had in common a highly formalized and specialist oriented approach to both the internal formulation of social issues and the presentation of issues to the outside world. However, most of the experts who were employed had to be recruited from outside, and typically stayed for only a brief time because this was merely one rung on a career ladder. As a result, the continuity and conviction with which issues are pursued has tended to suffer. We also noted that in several cases the career paths of these specialists took them quite quickly

into the service of those outside agencies which they were originally employed to oppose. When community members see this occur with regularity, they tend to become alienated from the whole political process.

PILOT STUDY FINDINGS

As we have stated already, the purpose of our study was not only to identify and abstract those indicators that most clearly represented our key variables in the local context, but to evaluate community processes in terms of their observed strengths or weaknesses along each variable dimension. The scaling that was suggested as most appropriate was that of polar-ordinates where positive values between +1 and +5 indicated increasing strength and negative values between -1 and -5 indicated increasing weakness. A value of 0 would thus indicate a mid-point.

In the design of the pilot project a number of initial indicators were developed for each variable. Additional indicators were developed during the fieldwork. Both are included in the lists which have been presented. Each researcher judged each community only in terms of its position on each of the initial indicators. This, of course, represents a judgement, rather than an objective measure on their part. The individual values for the initial indicators were then averaged and are the basis of the statistics which follow.

TABLE 1

KEY VARIABLE COMPARISON BY COMMUNITY

	Social Vitality	Economic Viability	Political Efficacy	Competency Index
Smithers	+5 →	+5 →	+5 →	+15
Stewart	+4 →	-3 ↑	+4 ↑	+ 5
Aiyansh	+4 ↑	-4 ↑	+5 →	+ 5
Skidegate	+3 ↓	-2 ↓	-2 →	- 1
Houston	+1 ↓	-4 ↓	-5 ↓	- 8
Hazeltons	-2 →	-5 →	-3 ↑	-10
Masset	-4 ↓	-4 →	-4 →	-12
Kitimat	-5 →	-5 →	-5 →	-15
Mean	+ .8	-2.8	- .6	-2.6

↑ Indicates the trend is moving in the positive direction

→ Indicates the trend is stable

↓ Indicates the trend is moving in the negative direction

In addition to establishing a scaled value for our study communities along each of the key variable dimensions, Table 1 also provides an indication of whether these values appeared to be increasing, decreasing, or remaining stable. This estimate was based on our attempts to locate each community within a historical perspective as well as evaluating its current condition. The trend indicators appear as arrows pointing downward (tending toward more negative values), upward (tending toward more positive values) or horizontal (stable values).

Finally, Table 1 includes a "competency index" which is simply the numerical sum of the three key variable values. This notion of "The Competent Community" was developed by Cottrell (1977) who argues the need for some measure by which a community could be evaluated in terms of its ability "to nourish some interest, meet some need, or render some service". Such a composite ability would appear to be satisfied by our definitions of "political efficacy" (nourished interests), "economic viability" (met physical needs), and "social vitality" (rendered services) at the local community level. Cottrell's argument that the "competent community" is one that is "capable of co-ordinated collective action" (Cottrell, 1977:546.) is fundamentally similar to ours.

We have therefore arranged our study communities in descending order of this aggregate measure of "competency" with the "competency index" being attained by simply summing the ordinal values of the three key variables. Since these summations yield positive or negative values, Table 1 reveals that by our criteria, only three out of the eight study communities were in aggregate seen as "competent".

We must point out that because the quantitative values expressed in Table 1 are derived from subjective evaluations provided by community residents, the dividing line between "competent" (positive values) and "incompetent" (negative values) is much more arbitrary than the rank ordering based

on scaled values. However, this cleavage line does fit well with the more conventional objective indicators of community health that we discussed earlier. For example, the social pathology statistics vary very considerably between the last positive and first negative community.

Table 1 thus reveals a rank ordered comparison of our study communities along the dimensions we have chosen as potentially valuable in understanding and possibly predicting the consequences of various kinds and amounts of social impact. In addition, by correlating these ordinally valued behavioural and subjective indicators with various objective indicators we should be able to draw tentative inferences with respect to causalities and priorities. For example, it is worth noting that those communities with the highest aggregate competency values also show the lowest amount of externally imposed formal planning, the least availability of formal services and the least expressed desire for them, and the most notable success in influencing the amount and kind of past "impacts" to levels that were "absorbable". They have also been able to "indigenize" such impacts in some significant ways that have enriched local cultural or economic patterns.

If this observation proves to be valid in subsequent replication studies, it leads to the tentative conclusion that for those communities that already show a relatively high level of functional "competency", the best way to determine what is best for the community with respect to providing guidelines for any proposed impact would be to leave such an articulation to the community's own resources and processes.

To put this in an immediate and relevant context, the possibility of a very major molybdenum mining development close to Smithers precipitated an outside initiative to do a "social impact study" on the community in 1979. The community was concerned about this announcement, partly because the study was being paid for by the mining company and might therefore be biased. But a more important concern was the commonly

expressed conviction that the conventional social impact studies process of obtaining intensive inventories of everything from available service infrastructures to V.D. rates was likely to miss important community perceptions and processes. It is our view that the appropriate role for government in this kind of situation at this time is to ensure that issues of this kind get a proper local public hearing. This is appropriate for Smithers and to a less certain extent, for Stewart and Aiyansh. However, we would not make the same observation in the case of other test communities which appear to be very vulnerable to future impact situations, because they lack internal social vitality and political efficacy. This is not to suggest that all impacts are necessarily destructive. On the contrary, we speculate that some sort of "impact" may well be required to move those communities with currently very low levels of "competency" to a point above the "take off" threshold. But impacts in these situations have to be carefully administered on the basis of some understanding of what is required. While our model is tentative at this stage, we are of the opinion that it may provide some preliminary insights as to what should be the aim of policy in such a situation.

Table 1 also provides further information in that if the index values are column averaged, it is evident that in the study region as a whole, the social vitality variable is stronger than either the economic viability or political efficacy variables. This observation suggests that the social realm is intrinsically the most assertive, even under conditions that do not foster, or positively discourage, economic and political processes at the local level.

But if this is true, what does it mean to have a vital social process but a non-viable local economy and/or a non-effective local political process? An answer emerges from observing that as the negative values for the economic and political factors increase, the positive values for social vitality decrease, ultimately becoming negative themselves.

It seems that although it is possible to retain social vitality as an independent factor for some time, it is not likely to persist indefinitely after material independence and control of critical decision-making has been lost. There is strong evidence of a number of kinds that this has occurred in Houston.

The historical information in the community profiles and in the case of Stewart, in particular, confirms that the residents appear to be keenly aware of this relationship and are currently utilizing their residual high levels of social vitality and political efficacy to try to establish as quickly as possible the conditions of local economic independence. The Nishga of New Aiyansh are also now focussing their often impressive social and political skills on the critical economic dependency factor that has emerged both in the wake of the final breakdown of their wilderness barriers to external exploitation and will become yet more urgent after their land claims are settled.

Although the Gitksan-Carrier in Hazelton are low on all the community process variables, the Tribal Council of the district also appears to sense these relationships and has recently taken steps to build both social and economic potentials by conducting research into their own situation.

Table 1 also begins to answer a second set of questions regarding the relationship between the three key variables. For example, are all permutations and combinations possible, or are certain combinations not likely to occur? By taking only the positive and negative signs (which refer to the polar opposite variable conditions) and arranging them in terms of all possible combinations, this question can be answered. Table 2 provides the essential re-arrangements.

TABLE 2

COMPARISON OF KEY VARIABLE CLUSTERS BY
POSITIVE AND NEGATIVE COMBINATIONS

<u>Social Vitality</u>	<u>Economic Viability</u>	<u>Political Efficacy</u>	<u>No. in Cluster</u>	<u>Names</u>
+	+	+	1	Smithers
-	-	-	3	(Kitimat (Masset (Hazelton
+	+	-	0	No sample community
+	-	-	2	Skidegate Houston
-	+	+	0	No sample community
-	-	+	0	No sample community
+	-	+	2	(Aiyansh (Stewart

From Table 2 it can be seen that only one community, Smithers, is positive on all three variables. There are three communities clustering in the all negative variable combination. This tells us that both the most positive and most negative combinations exist and that the all negative situation is the most common, at least in this test region.

It is also evident from Table 2 that social vitality and political efficacy can co-exist, at least for a time, in the absence of economic viability. It is also possible to have examples of social vitality without either political efficacy or economic viability. But given our earlier observations about the apparent necessity for gaining economic viability if social vitality is to be retained, it is interesting to compare Tables 1 and 2. A comparison of the trend indicators of the three communities that did not (at the time of the study) have very high levels of economic viability, but did show reasonable indications of social vitality and political efficacy, is interesting. In Stewart and New Aiyansh, the economic viability trend was judged to be rising. A comparison of the two communities, Houston and Skidegate, that still had some positive social vitality characteristics, but were negative in both the economic and political variables, reveals that both have a declining social viability trend. On the basis of these comparisons it can be concluded that social vitality, whatever its original source and strength, cannot be retained forever in the absence of political efficacy. Similarly, it can be concluded that it requires positive levels of both social vitality and political efficacy if there is to be a possibility of gaining, or regaining, economic viability. If these findings are confirmed by further research, such an observed relationship could clearly have important implications for policy design in northern hinterland situations.

It is worth noting the characteristics of the empty combination sets. It is, of course, possible that some of these empty sets are the result of not having a sufficiently

large sample of communities to have picked up all possible real world combinations. This possibility should be checked in any further community study which is based on this model. But as things stand at present in the results of the pilot study, it is interesting to note that it does not appear possible to have positive economic viability without either social vitality or political efficacy (or both) being also positive. Nor did we find any community with positive political factors but negative social factors. Apparently, a certain amount of social cohesion is necessary before positive political processes can emerge. This last point reinforces our more general observations and indicates, tentatively, which of our three community process factors is most likely to be causal and hence predictive of other factor variability.

This raises the issue of the potential this model presents for establishing intra-variable strength relationships. Specifically, is it possible to utilize the conventional regression techniques in establishing correlational strengths and causal directions?

Technically, it is a simple matter to use the ordinal valuations as the basis for calculating correlation coefficients and their associated coefficients of determination. Table 3 portrays the results of these calculations.

TABLE 3
REGRESSION ANALYSIS OF KEY VARIABLE
COMBINATIONS

	Correlation Coefficient (r)	Coefficient of Determination (r^2)
Social Vitality Economic Viability	.63	.40
Social Vitality Political Efficacy	.85	.72
Economic Viability Political Efficacy	.57	.32

As can be seen from comparing the correlation coefficients (r) of the three possible combinations, the social vitality level is the common predictor of the level of political efficacy ($r = .85$), explaining some 72% of the variance, and of the level of economic viability ($r = .63$), explaining somewhat less, but a still significant 40% of the variance. The relationship between economic and political levels falls below significance and therefore appears to be a non-causal and non-predictive relationship.

The reader must be cautioned to regard this regression analysis as no more than suggestive. It is based on a small pilot study sample, and the less than fully reliable and valid procedures that were of necessity employed. The results, whose reliability and validity have yet to be tested, nevertheless suggest two important points. First, the exercise does reinforce other observations, both those made in the field, and as a result of the analysis of the results of the field study findings. Second, social vitality appears to be the most fundamental factor. This implies that there is a high potential for developing this model approach.

CHAPTER FOUR

CONCLUSION AND FUTURE DIRECTIONS

Our pilot study has attempted to demonstrate an alternative approach to social impact analysis in Northern hinterland communities. By focussing on behavioural and subjective indicators of three critical community process variables, and by emphasizing "locality" rather than "universality", we hope we have been able to begin to establish a model that not only provides a different kind of abstraction of reality but also a potential for generating a predictive capacity.

In pursuing this initial research, we were, of course, testing ideas as much as abstracting indicators. The validity of these ideas and the reliability of the indicators have not yet been fully demonstrated. However, by assembling our findings in the way we have, we believe we have been able to show how certain quantitative approaches to drawing inferences and testing relationships are possible and valuable in the complex realm of normative data interpretation. We wish to emphasize that we were engaged in a pilot study and not a fully fledged research operation. Obviously, more testing is required if the full utility of our model approach is to be established.

Whenever we ourselves failed to emphasize locality, either through ignorance as in our early contacts with community or through attempts to apply conventional research assumptions, we encountered disinterest or rejection. However, whenever we were able to utilize our own as yet imperfectly developed model to explain or answer a query about why we were asking particular questions, and did so in ways that left the respondent with a fuller understanding of his or her own available knowledge, then we had no problem in getting co-operation.

In pursuing these insights, we kept in mind our original intent, which was to develop a model that would be of value in establishing Northern development policies or guidelines because it was able to incorporate local community processes. But we also came to recognize that while a sympathetic policy environment is important to the effective protection and enhancement of Northern community life, it is also important to involve those communities themselves in dealing with existing problems with these processes in order that they might understand them.

Future developments which are based on this pilot approach could take several directions. First, if the potential of our tentative model is to be developed, a more intensive replication would be required in order to determine reliability and to extend the concepts and relationships that are only tentative in our study. We suggest that our study region would continue to provide a good venue for such an intensive follow-up, and we would further suggest that some longitudinal research be taken in some of those communities that are about to be subjected to major impacts in the immediate future. If this was done, perhaps in conjunction with an action research programme of some kind, the results might provide crucial information about ways of reversing negative trends and/or achieving positive adaptations.

Alternatively, if the formalistic aspects of the model are not regarded as particularly valuable it may be considered that our "indicator approach" has potential for "sensitizing" field workers, programme directors, and policy architects. In this circumstance, certain field exercises and/or educational sessions might be contemplated.

In conclusion, we believe that it is possible to quantify and manipulate normative data of the kind we have described in this report in order to determine relationships, predict likely consequences of alternative actions, and thereby optimize policy and programme choices with respect to any given community situation. It is in this sense of going beyond description into explanation and prediction that we feel justified in laying some claim to having begun to establish a "model". For to simply describe the characteristics of a community is no great feat, nor is it of much value, when it comes to evaluating the positive or negative effects of a given kind or amount of development impact. To be able to abstract relevant and reliable normative indicators, and to correlate these to the usual (or perhaps unusual) objective indications in ways that make sense not only to the outside evaluators, but also to the community itself is, we contend, critically important in the context of contemporary northern development issues.

This last observation, that this approach has potential importance for the community itself in assessing social impact analysis, is one that emerged during the process of doing the fieldwork. It became very clear that the degree of co-operation we received and the quality of the responses that followed were directly proportional to the extent that we, as researchers, could feed back "meanings" into the context of local understandings and concerns.

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